UTAH DEPARTMENT OF TRANSPORTATION
TRAFFIC OPERATIONS CENTER
MONTHLY REPORT JULY 2003

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Field Devices Summary

Freeway Closed Circuit Television (CCTV)	163
Surface Street CCTV	32
Dial-up CCTV	35
Total CCTV	**230**
Freeway VMS	42
Surface Street VMS	17
Portable VMS	2
Total VMS	**62**
HAR (6 deployed, 5 portable units)	11
TMS	231
RWIS	41
Connected Traffic Signals	613
Connected Ramp Meters	23

Operations Summary

VMS Messages Displayed	259
Signal Timing Calls	35
Signal Maintenance Calls	267
New Work Orders	403
Incident Responses	529
Website Visitor Sessions	55,387
511 Calls	14,695
Email Alerts Sent	436
CommuterLink Questions	14

TOC Employee of the Month

Deryl Mayhew – Region 2 Signal Engineer

The TOC was host to a tour from the Western Transportation Institute.

KUDOS!

To Paul Jencks and Keith Scholl for all the great work they do adding new features and enhancing the functionality of the CommuterLink website. These new features include an Amber Alert Popup, additional links, camera image popups, and a new construction page to be used by UDOT's construction website.

TOC Mission

1. To Support UDOT and the Department of Public Safety in Improving Highway Safety.
2. To Help Provide Reliable and Efficient Travel.
3. To Provide Useful and Timely Real-time Traffic Information.
4. To Work Together with Other Government Agencies to Serve the Public.
5. To Provide Excellent Customer Service.

ACTIVITY HIGHLIGHTS

TOC Activities

This Month


Esther Olsen receiving a gift basket.

1. On Friday July 11th, a farewell party was held for Tammy Pugmire and Esther Olsen. Everyone had a chance to wish them well in their future endeavors. Tammy is now working at the complex in the UDOT Research Division.
2. The student members of the Western Transportation Institute from Montana State University – Bozeman toured the TOC. They were interested in the TOC's role during the 2002 Winter Olympics with traffic signal control, VMS, and communicating information to the public.
3. The TOC's Denny Simmons has been busy with the State of Utah's Amber Alert system. To streamline the process of issuing alerts, UDOT has improved its communications with the Department of Public Safety, Bureau of Criminal Investigation, and other law enforcement agencies. Alerts are issued to all Utah law enforcement agencies, ports of entry and general public through TV and radio broadcasts, VMS, HAR, 511, email alerts, the CommuterLink website and faxes. Denny also attended the Conference of Western Attorneys General held in Park City from the 26th to 30th to promote further interstate and national implementation of the Amber Alert.
4. A fire extinguisher training was held on the 30th of July. Marvin Fuell of the Signal Systems group organized this training for TOC, Region 2 and Complex personnel. Salt Lake County Fire instructed those who attended about the various types of fires and the type of extinguishers used to put them out. Participants had an opportunity to extinguish practice fires.
5. The TOC ISS group has had a busy month with enhancements to the CommuterLink website and preparing for the CommuterLink Media Event in Region 3. Keith Scholl has changed the display of the camera images and incident/construction items to appear as pop-up windows on the CommuterLink website. This improves the readability of these items and provides for a larger initial camera view. Andre Sanchez, Michael Van Orman and Clint Hutchings have been working to establish communications and configure the new CCTV's and TMS in Region 3. Troy Hyer has updated the TOC Operator's map to include the new TMS segments.

ATMS Improvement and Expansion Activities

The following is a list of many of the projects that have either been completed, or are currently underway:

Region 1:

- The fiber-optic installation from Lagoon to Hill Field Road has been completed. There are currently two more sections of fiber, one in Layton and the other in Ogden, that need to be installed in order to complete the fiber link between the TOC and the Region 1 headquarters. The fiber installation in Ogden is scheduled for August and Layton fiber installation is scheduled for September.

Region 2:

- During the month of July faulty detection was replaced or repaired at nine intersections as a part of the State Wide Detection Loop Repair Contract. A total of forty-four malfunctioning loop detectors were replaced or repaired. Restoring detection results in more efficient signal operation at these intersections, which include North Temple at 300 West, North Temple at State Street, and Foothill Drive at Wakara Way.
- The fiber-link, which was cut as a part of the 12300 South project, has been reconnected. Restoring this link brought back communications to the CCTV, TMS, and VMS at the Point of the Mountain. The reestablished communications to the Point of the Mountain also enabled the wireless connection to Region 3 to be completed.

Region 3:

- The wireless communication link between the TOC and Region 3 headquarters has been completed.
- The signals on Spanish Fork's Main Street between I-15 southbound and 300 South have been connected to *i2TMS* (formerly known as *icons*) using the new IP communications architecture.
- A media event is scheduled for August 28, 2003 to introduce the Utah County public to CommuterLink. This event will feature:
    - A Region 3 ATMS workstation fully integrated with the TOC
    - Video feeds for display on the Region 3 workstation and SmartBoard
        - Access to any existing cameras currently connected to the TOC
        - Access to the new Utah County CCTVs and TMSs at various locations throughout Provo, Orem, and along I-15
    - Spanish Fork traffic signal access and control via *i2TMS*
    - Website graphics to depict Utah County, with TMS and video access representation from all active TMS and CCTV sites.
- A concept report for the Utah County ATMS media event has been completed. In the future all ATMS projects will have similar concept reports, which consist of a description of the project's purpose, environmental clearance information, configuration information for the communications, and a summary of the funding, schedule, staffing, contact, considered alternatives, and the final recommended alternative.

Region 4:

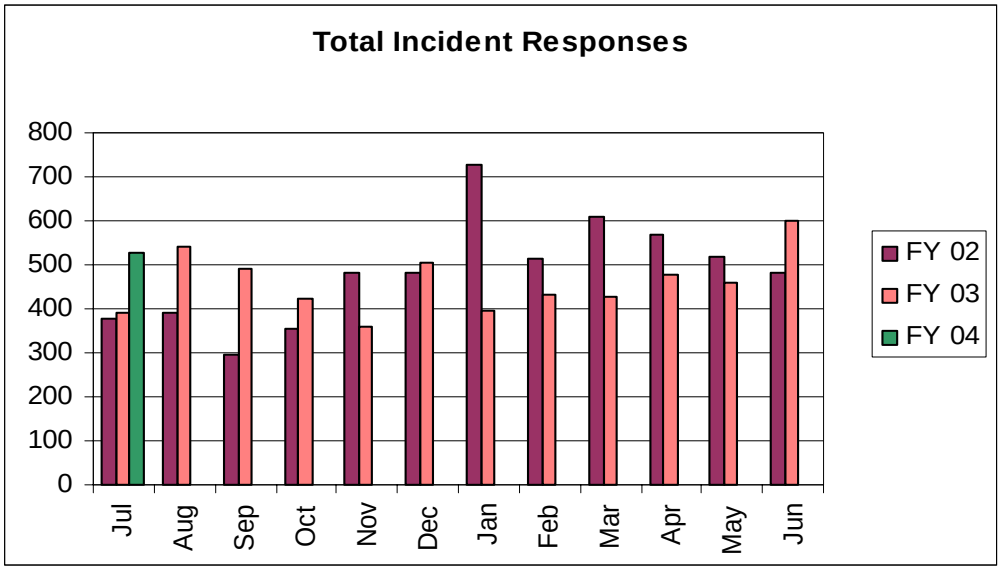
- A new CCTV is planned as a part of the Helper Interchange Reconstruction.

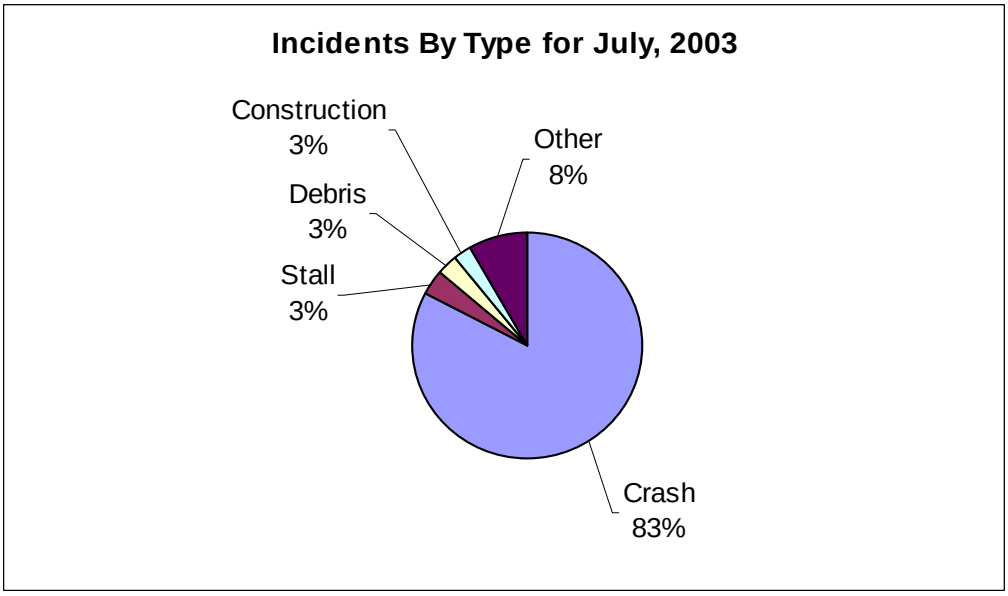
Acronyms

ATMS Advanced Traffic Management System	NTCIP National Transportation Communications for ITS Protocol
CCTV Closed Circuit Television	TMS Traffic Monitoring Station (count station)
DPS Department of Public Safety	TOC Traffic Operations Center
HAR Highway Advisory Radio	TTI Travel Time Index
RWIS Road-Weather Information System	VMS Variable Message Sign

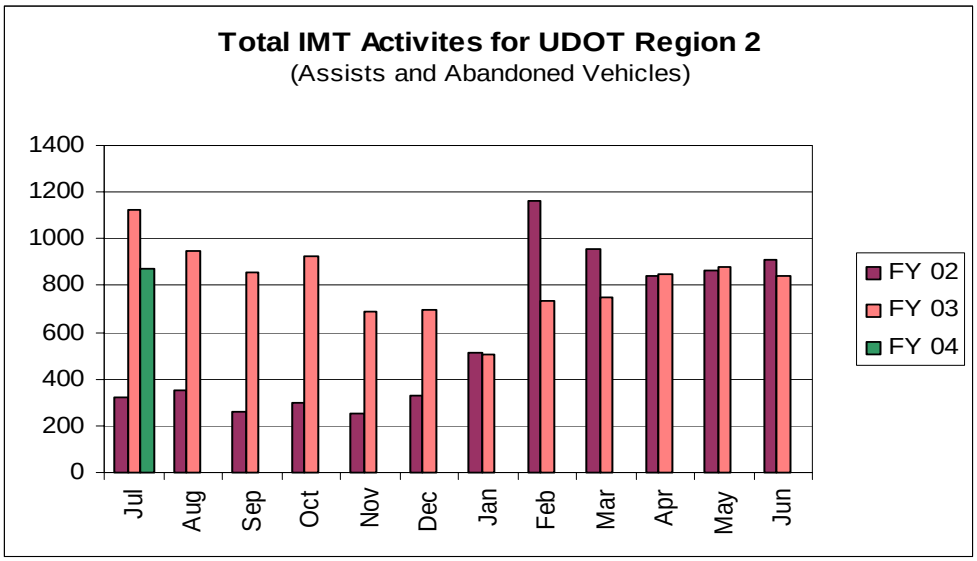
Safety

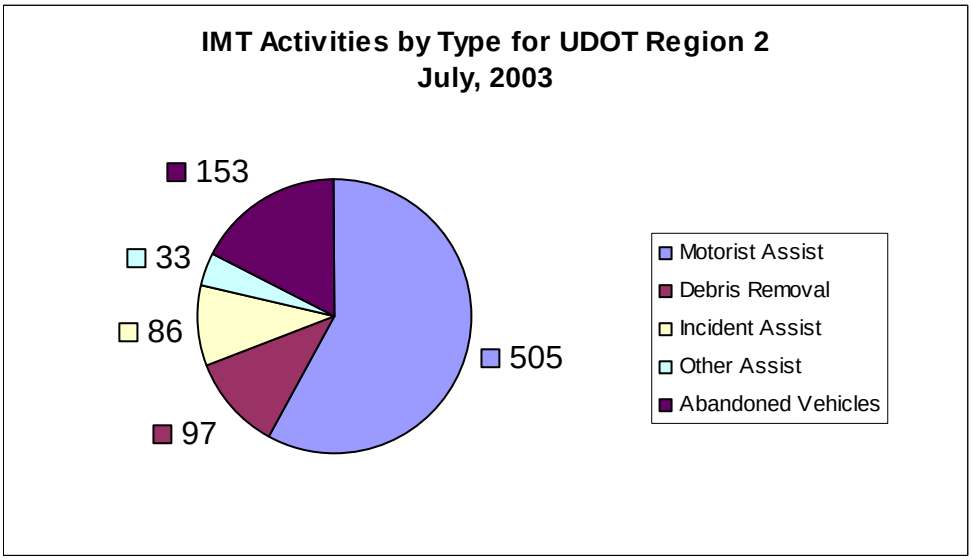
An incident response is an incident recorded in the ATMS system. These can be of several types, including crash, construction, debris, stall, congestion, or other. Each time an incident is created information is sent to the 511 system, the website, and email alerts are generated.





Region 2 Incident Management Team (IMT) Activities





Freeway Traffic Level of Service

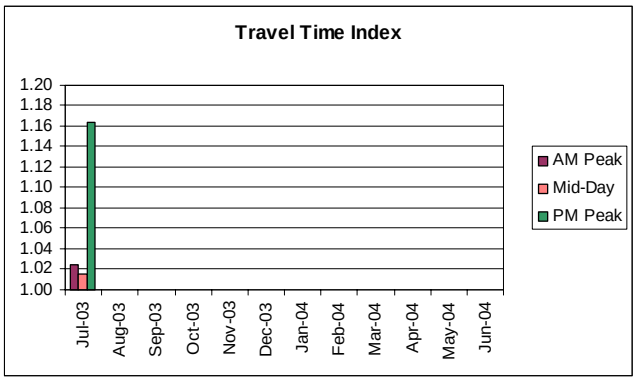
Freeway flow measures are taken from the Traffic Monitoring Stations (TMS) located throughout the Salt Lake Valley. As more TMS sites are installed throughout the state, they will be included in these performance measures.

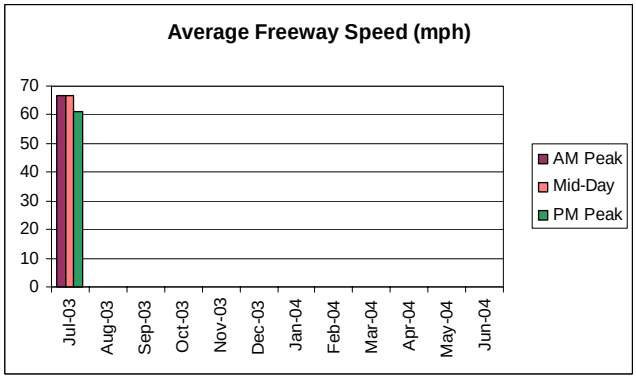
Travel Time Index: This measure of mobility is based on freeway speeds and is weighted by segment lengths and by the traffic volume. A value of one (1) represents free-flow speeds. A value of 1.12 indicates that the average vehicle trip takes 12% longer than if that were the only vehicle on the freeway.

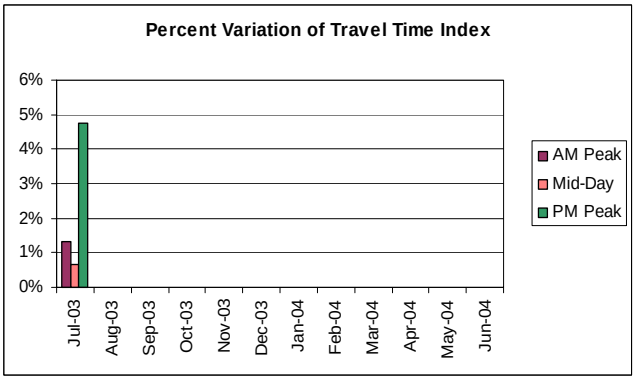
Percent Variation of Travel Time Index: The percent variation in the Travel Time Index is a measure of how much the Travel Time index changes from day-to-day.

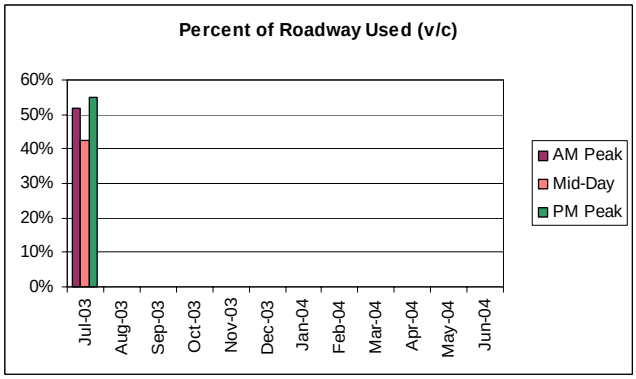
Average Freeway Speed: The Freeway Speed is weighted by volume.

Percent of Roadway Used: The percent of roadway used is the ratio of the volume on the segment to its capacity. This is otherwise known as the volume to capacity ratio, or (v/c).









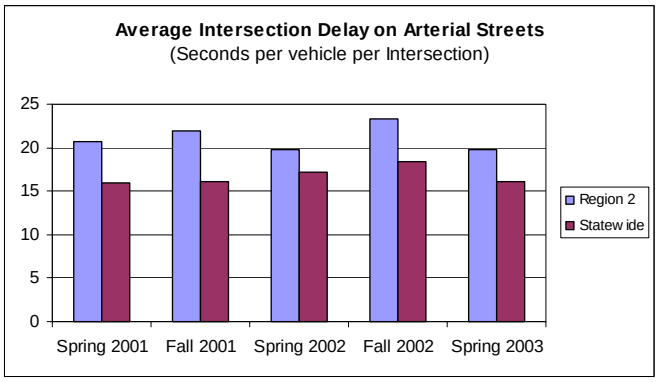
The 5 links with the highest average Travel Time Index for the month are:

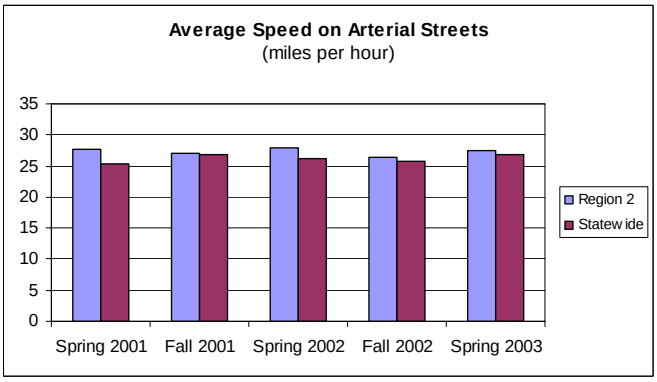
Segment	Period	AvgOfTTI
I-15 NB from 600 N to I-215 W	PM Peak	1.81
I-15 NB from 600 S to 600 N	PM Peak	1.38
I-215 S WB from Knudsen's Corner to I-15	PM Peak	1.17
I-15 SB from 10600 S to Point-of-the-Mountain	PM Peak	1.16
I-215 S WB from Knudsen's Corner to I-15	AM Peak	1.13

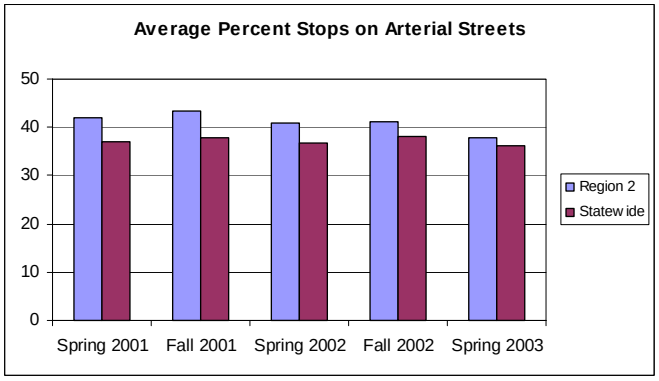
Surface Street Traffic Level of Service

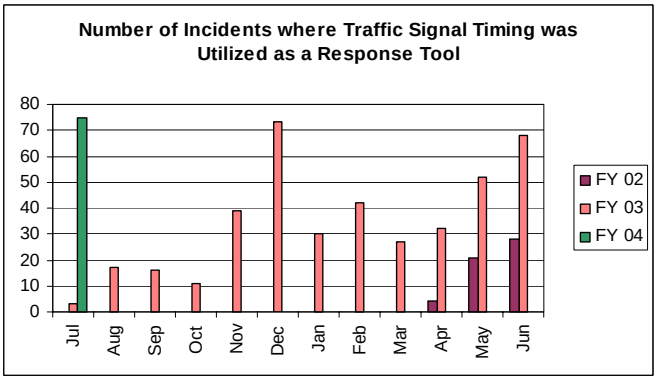
The surface street traffic statistics are generated through a series of Travel Time measurements. Much can be learned through several runs along a corridor, including the average travel time, the average percent of intersections at which a vehicle must stop, the average time stopped at an intersection, and the average speed. The Statewide Timing group gathers these measurements from Regions 1-4 twice each year. The chart in the lower right corner shows the number of incidents where traffic signal timing was modified in order to help traffic flow around closed lanes, or to help relieve excessive congestion.

Since the data is gathered semi-annually, each month this report will provide charts for a region compared to the statewide average. The charts below represent Region 2 compared to the Statewide Average.

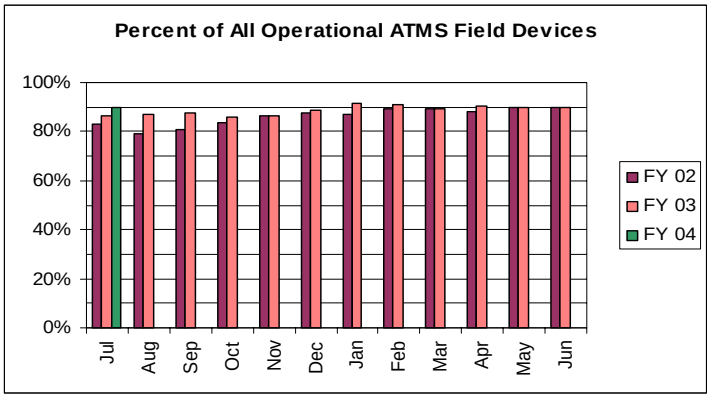


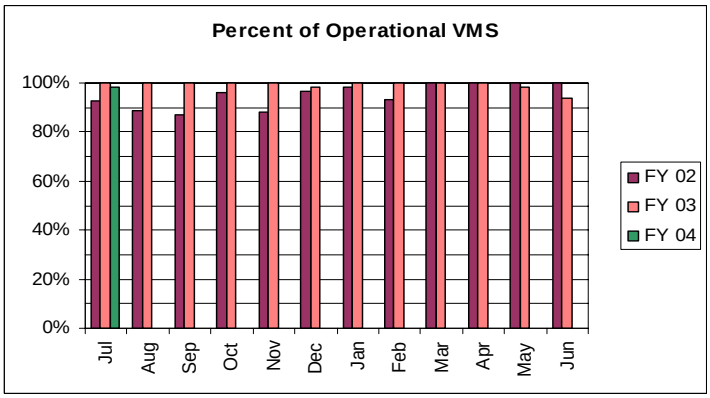


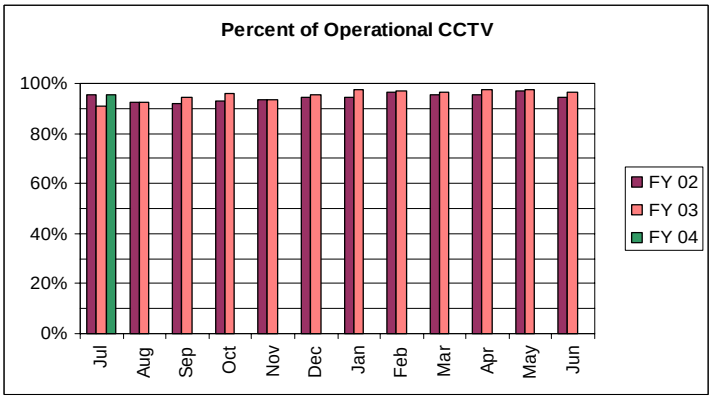


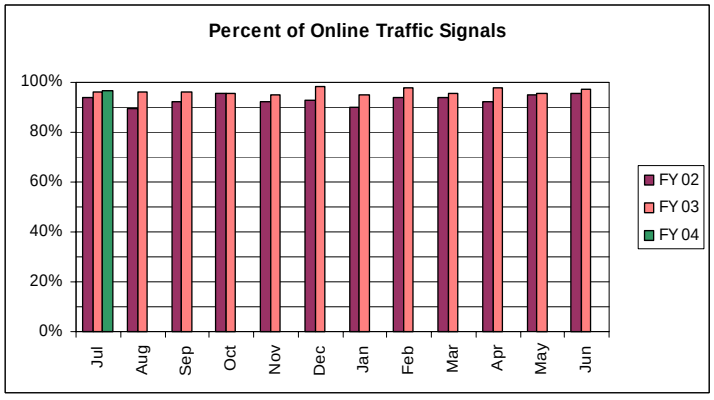


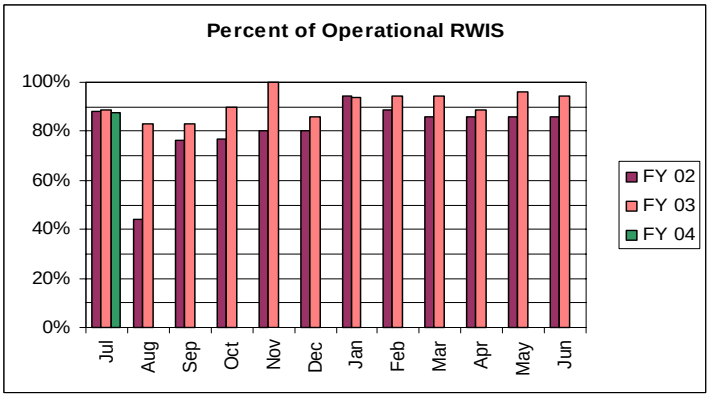
Maintenance

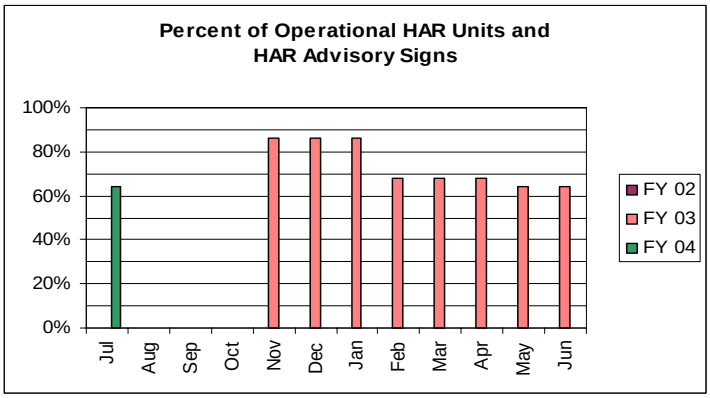


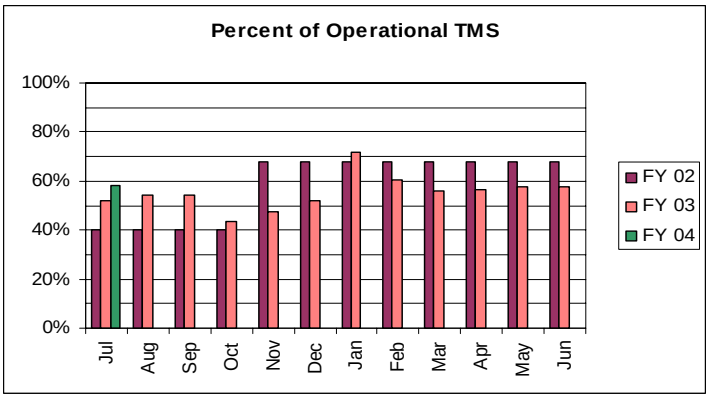




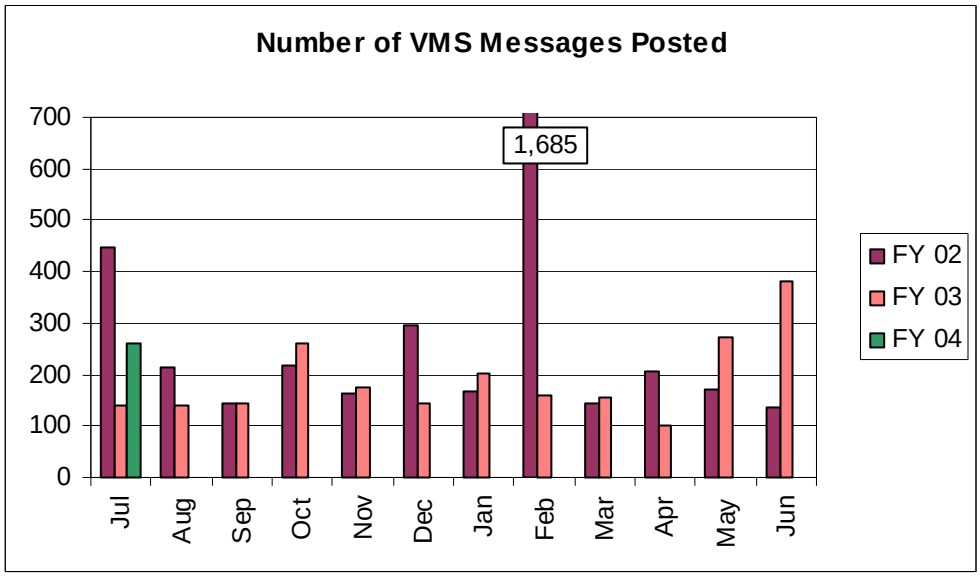


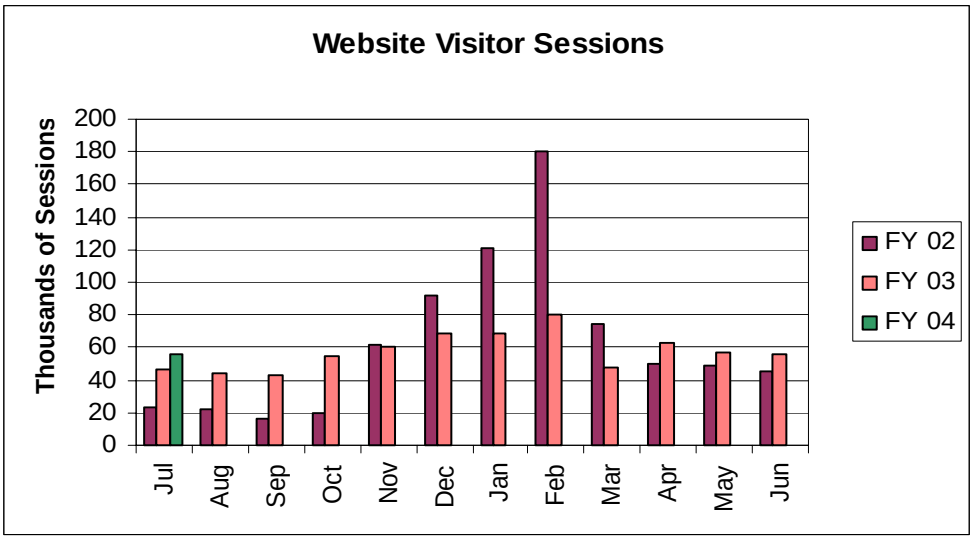


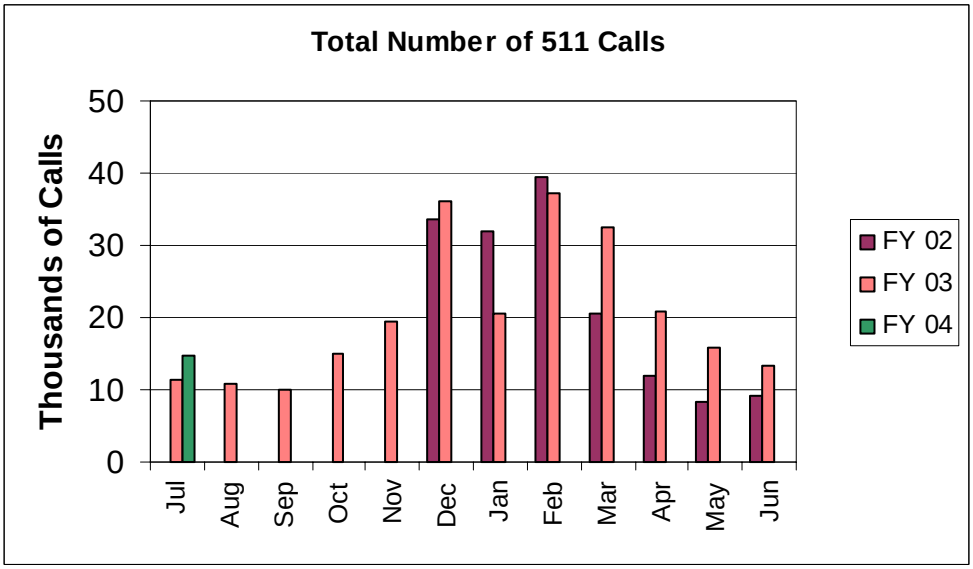




Traveler Information







Customer Service